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THE FARM INDEX

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The
Farm
Family: New Viewpoints



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June agricultural forecast sees bumper harvest (weather permitting) . . . relief from racing prices for farm inputs . . . reduced net farm income. Record wheat crop seems assured. Corn's in good shape. Citrus will tip the scales. Cattle slaughter might set a high by year's end. Possibly strong gains for milk. More eggs this summer than last. Laggards: cotton, wool, hogs, broilers, turkeys. Turnaround for soybeans. Use for 1974/75 could be the least since 1968/69. Blame is pinned on drop in U.S. disappearance of edible fats and oils due to the ailing economy. Foreign soybean demand is dragging. Also, U.S. beans are meeting stiff competition from Brazil's offerings. Lazy textile sales will get moving again if the economy perks up. This year's disappearance was the skimpiest since the 1890's. Wool scene features another dip in output, but raw wool use should gain as the season progresses. "Specials" for processed vegetables are more the exception than the rule. Retail prices in 1975 for most processed items won't budge much from current levels, barring a whopping summer crop. Fertilizer prices may have peaked for this year and next. Most farmers got all they needed (or could afford) this season. Food prices at retail will average 6 to 8 percent above last year if the feed crop is good, quite a change from the 14-percent jump in each of the past 2 years. Better crop yields in store this year will mean a dip in variable costs to farmers. But measured against 1973, 1975's costs will be much steeper. Midyear inventory of hogs and pigs suggests pork supplies will remain short and prices will stay relatively high for the rest of 1975. Fed cattle marketings this summer could begin to revive from the low spring level. Nonfed slaughter will swell as cow herds are culled. Fed cattle prices could weaken. Picture is more encouraging for feeder cattle prices, however.

The Farm Family: New Viewpoints



Two hundred years ago, 9 out of every 10 Americans lived on a farm. Today it's the other way around—more than 9 in 10 live in a town or city.

This has been one of our Nation's most momentous social changes—the

transition from a self-sufficient rural economy steeped in agrarian ideals to a highly industrialized urban society.

One result is that today the farm family lives more like its urban neighbors than ever before. Farm

families also are more likely to hold similar ideas, ideals, and customs.

The farm home looks like a single-family dwelling in town. The kitchen, laundry, and bathroom are much the same. But rural areas still have more substandard homes than elsewhere.

Practically all farms now have electric power, a car or truck, and a telephone. Radios and television are commonplace, and farm families tune in on the same programs as city families.

Today's farm resident has almost as many years of schooling, too. But he still falls short of urban standards for such services as health care, fire protection, and libraries.

Catching up. Income of farm families in recent years has averaged closer to urban levels than at any time in history. More of it, though, comes from wages and salaries and other nonfarm sources than from farm earnings. The

average farmer now gets over 40 percent of his total income from nonfarm sources. For smaller farmers—those with less than \$2,500 of farm sales—the percentage is as high as 93.

The urban trend toward commuting has caught on in the country. Many farm people drive to town for jobs. Or the reverse may be true: They live in town where public services are more readily available and commute to the farm. Thus, many combine town and country living with no conflict in lifestyle.

What has brought about these vast changes? They have come gradually over many years as new doors to the outside world have opened to the farmer and his family.

First mail service. One of them is so common that few city people would even think about it—the establishment of rural free delivery of mail, back in 1896. This not only



Circa 1930, one of the first electric dishwashers comes to the farm.



Modern ranch is well laid out with large, comfortable dwelling.

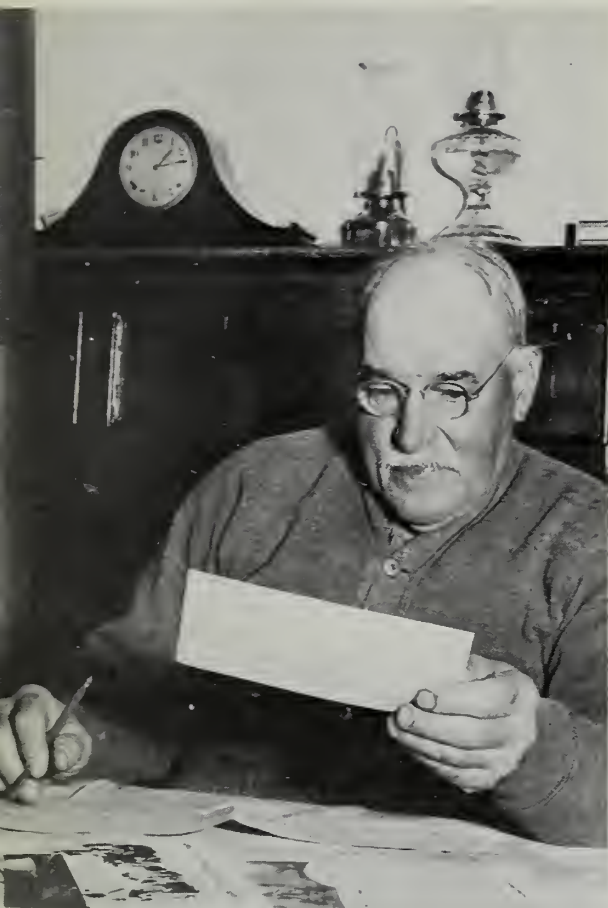
made it easier to send letters, but brought newspapers and magazines into many farm homes for the first time.

Another change was construction of farm-to-market roads, which made visiting with neighbors and trading in nearby towns much easier.

A third was parcel post service and the mail order catalog, which brought urban products to farm homes, often from great distances. This helped to lessen differences in urban and rural styles and tastes, and whetted the appetites of country people for other conveniences.

Electrifying impact. Electricity probably had the greatest impact on farm life. Even before electricity reached the farm, trains, movies, cars, and better highways were bringing changes. Later, radios, air travel, and television brought more.

Farmers became as mobile as their town and city counterparts, and were exposed to the news of



Farmer's "homework" includes filling out production forms for USDA.



"Mom was right . . . green apples aren't good for little boys' stomachs."

the world and the same products of the market. The city reached out to the farmer with ideas, inventions, and other urbanizing influences. The barriers of physical and social isolation on most farmsteads became a thing of the past.

Friendly New Englanders. Of course, these changes took hold at different rates in different areas of the country and in different types of communities. New England farmers, accustomed to the township form of government from earliest times, were often closer to townspeople than their frontier brothers. They adopted innovations more readily, and alliances between town and country were more easily formed.

The unique plantations of the South were marked by their own kind of self-sufficiency. The plantation owner viewed the cities from a distance, not greatly concerned with them except as markets for cotton and tobacco, his chief cash crops and money-earners.



Sloping roofs of New England farmsteads are ideal for winter snowfalls.



A farmhouse in Tennessee.

Isolationists. Then there were the pioneer farmers, gradually pushing the frontier farther west. They lived on isolated farmsteads. Their contacts with "city folks" were relatively rare, and often unfriendly, until the advent of modern communication and transportation. They were largely self-sufficient and had little use for learning about city people and city life. They felt they were the basic producers in the country and that everyone else needed them.

Dependent farmers. The changed nature of agricultural production

also pulled the farm family closer to the city. Commercialization and specialization have made farmers more dependent on the markets. The adoption of machinery and other modern technology has made them more dependent on dealers and stores for goods and services used in production. The growth in size of farms has created heavy demands for outside capital for investment and credit. So the modern farmer is more like a town businessman in attitudes and behavior.

Management skills. While farming still demands plenty of hard work



The pioneer spirit still exists today, as adventurous souls seek to wrest a living from the indomitable desert.



Wisconsin farmer shows off the latest in mowing equipment.



Roadside stands boost farmers' profits.

and mechanical and technical skills, management has become more crucial as operations have become more complex. A typical farm nowadays has hundreds of thousands of dollars invested in land, machinery, and stock, and produces much more than it used to. Managing the production, marketing, and financing on such enterprises demands more education and training, and of a different kind, than was the case some decades ago.

These changes in the home and business life of farm people have been the catalyst for altering beliefs, customs, values, attitudes, and institutions.

Agrarian ideals. The early agrarians attributed a moral value to hard work and a superior status in society to the farmer. At a time when 90 percent of our people were farmers, and were wresting a living from a virgin continent, it is not difficult to understand why they held these values. New land was there beyond the frontier when the old land was worn out. Markets for farm products were guaranteed by a growing population here and abroad.

Underlying these values and beliefs was a fundamental dedication to freedom—freedom to choose and follow one's own destiny. This agrarian idealism was a way of life which the farm family considered appropriate to a democratic, progressive, free society.

Shifting tides. The farm family of today still holds many of those traditional values and beliefs, but some of the agrarian ideals of the first century and a half of our history have been swept away by the swift currents of change in the last 50 years. Customs and behavior have also been strongly influenced by the shifting tides of events that have engulfed the whole country. Some values have been retained though modified; some have been lost or exchanged for others; and new ones have been adopted.

One of the most tenacious tenets of early agrarian philosophy is a



Sundays were family get-together days at the turn of the century.



Nebraska sod house, typical of the Plains in the 1800's.



Summertime meant canning time for the early-day farm woman.

Comforts of Home



Electricity? We had it long before I was born, says the 35-year-old city dweller. Farm boys take exception. In 1940 only 3 out of 10 farm homes were electrified, versus 8 in 10 for all homes in the U.S.

These days almost every farm home has electricity, and farm families enjoy the same amenities as urban people. For instance, about 9 in 10 farm homes have a telephone today, whereas fewer than 4 in 10 did just 25 years ago. And over 95 percent of rural dwellings have a TV set, compared with only

50 percent as recently as 1955.

In terms of substandard housing, rural areas have more than their fair share but the situation has been improving. The 1970 Census showed they had half the Nation's substandard houses (lacking complete plumbing or dilapidated), down from 56 percent in 1960.

Educationally, people in rural farm areas lag behind their city cousins, a median of 10.7 years of schooling in 1970—1.5 less than urbanites. In 1960, however, rural farm areas lagged by 2.3 years.

strong belief in the family farm. Although 95 percent of all farms are operated by families who supply most of the management and labor, the "family farm" today is vastly different from its forerunner. It is generally large, more specialized, less flexible, more akin to business and industry.

Other strongly held ideals are the belief in continuing progress through scientific and technical improvement, and dedication to freedom and democracy.

Modified goals. Although the ideal of freedom is held by farm people as tightly as ever, the goal of independence has been modified by

the growing link between farm and nonfarm people in production, processing, and marketing. Functions once performed on the farm have now been taken over by urban industry and trade. There are few self-sufficient farms in the historic sense, due to commercialization, specialization, and mechanization.

While agrarian beliefs and values were being altered or discarded, new ideas and concepts were being borrowed from urban society. Large commercial farms have been forced to adopt some of the methods of urban enterprises. The head of a large modern farm may contract for part of his work. He may also

own and operate a business, such as a feed mill, which is associated with the particular commodity he produces. He may have a contract with a company to market his output.

Success is foremost. A farmer may maintain an elaborate accounting system. He may incorporate his farm to obtain many of the same advantages of other businesses. His goal, like the town businessman's, is success.

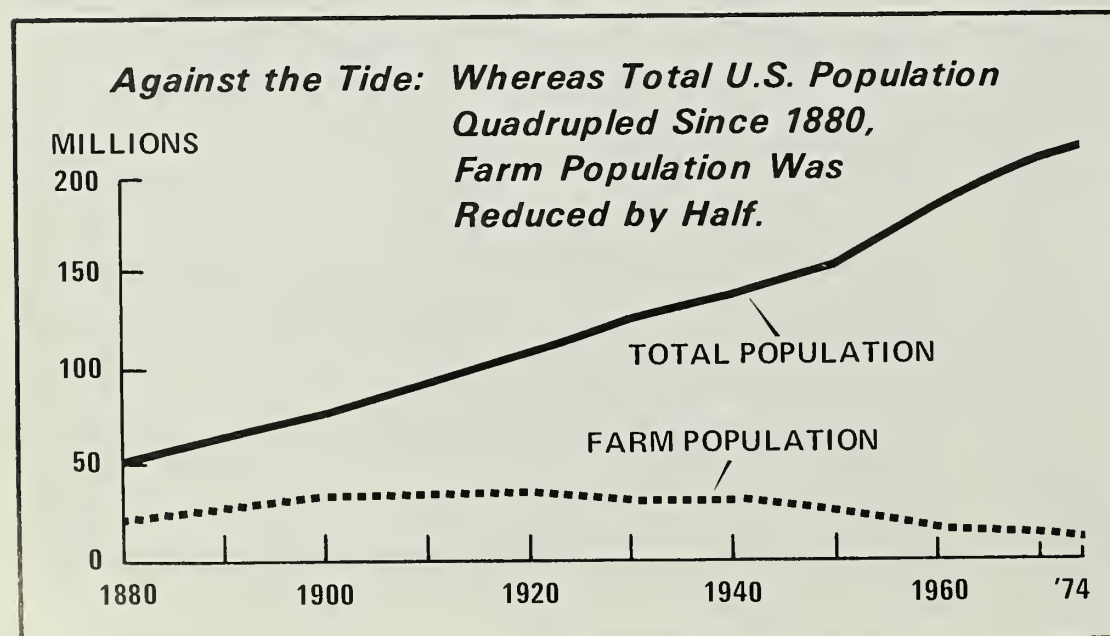
As interdependence of farm life with the rest of society has increased, cooperation has become more important than in the days of self-sufficiency and self-reliance. Cooperation among farmers to buy what they need or sell what they produce has been an effective means of reducing costs and getting better prices in a market economy.

Farm organization and professional farm leaders—farm-oriented but located in urban areas—have banded together with farmers to plead their cases to legislatures and nonfarm people. This kind of group action is not new, but has grown with the broadened scope and diversity of farm interests. It is an additional communication link between town and country.

Exceptions to the rule. Society has become more urbanized, and the differences between farm living and life in towns and cities have narrowed even more, although there are still exceptions. Farm life retains geographic and cultural variations as well as differences based on economic and social well-being. Customs, behavior, and institutions have roots in their own soil, and are not the same in New England, the Middle West, and Great Plains, and the South.

Nevertheless, the great acceleration of change, especially in the last quarter century, has affected all of society. It has largely rubbed out the differences between town and country living. Interdependence is the hallmark of the American people today.

[Based on special material by Helen W. Johnson, Economic Development Division.]



Yesterday's Farmer Looks at the Past

As part of our Bicentennial series, a former Minnesota farmboy takes us on a nostalgic trip to another era when farmhouses didn't have refrigerators or running water and a night on the town could be something as carefree as eating ice cream at a church social.

Elmer Starch has been in love with the land for as long as he remembers.

Born into a small Minnesota farming community in the summer of 1898, Elmer grew up on a family farm that raised dairy cows and crops.

Some of his happiest memories are from growing up on that farm in West Concord, Minn. "It was a really good, successful family farm. My father was very progressive. I didn't think so at the time, but he was. He bought the first hay loader in the community. Was al-

ways the first to buy any new machinery that became available. He was constantly reading. He kept up on all the new varieties of crops that came along. All his children went to school."

Bohemian heritage. Elmer's father, Stephen, immigrated from the tiny European country of Bohemia to Wisconsin and eventually married Frances Kunerth, a lovely young woman whose parents were also Bohemian immigrants.

In 1898 Stephen bought the Minnesota farm—240 rich acres for which he paid \$4,800. "It was on the fringe of the Corn Belt," Elmer recalled, "and pretty much in the Dairy Belt. We had quite a diversified operation—20 milk cows and selling about 25 pigs, 400 bushels of wheat, and 600 bushels of barley a year."

The farming community of West Concord was almost entirely Scandinavian in origin. The Starches were



With a razor-sharp memory, Elmer Starch recalls his early years on a diversified Minnesota family farm.

one of the few exceptions. "There were three Lutheran churches right around us," Elmer said, "but we were Methodists, and the nearest church was 7 miles away in the village." By horse and buggy, this was an hour-and-a-half trip.

Elmer remembers the children in the community attending summer school to study Norwegian. "It was similar to parochial school," he said. Although they were not Scandinavian, the Starches never felt any discrimination. "You were judged on what kind of people you were, not where your parents were from."

The farmhouse. The farm's crowning jewel was a lovely eight-room frame house, built by Stephen in the summer of 1898. There was more than enough room for Elmer and his four older brothers and sisters to spread out in this solid house with its large, airy rooms and cheery bay window.

There was no electricity in the community, and before Stephen sold the farm in 1918, the house was lighted first with kerosene lamps, then with Rochester burners, and finally, Coleman lamps.

There was no indoor plumbing either, but Frances did have a cistern pump in the kitchen sink, her "pride and joy," which provided soft water for washing and bathing.



Mr. and Mrs. Starch examine some old photos from Elmer's boyhood.

The only heat in the house was from a wood stove in the kitchen. Eventually this was replaced by a hard-coal model.

A spacious kitchen. The kitchen was the center of activity in the cold winter months, and Stephen had prepared for this by making it a large room, 16' x 16'. An adjacent 10' x 8' pantry gave Elmer's mother plenty of room for storing dry goods and preserves.

"The first stove my mother had was set on legs," Elmer recalled. "Six years after the house was built, my father bought her a really good range, with six lids and an overhead warming closet, where we dried our mittens. My father always wanted the best that was available."

The focal point of the living room was a large bay window with a good southern exposure for Frances' plants and flowers. "We had two carpets," Elmer remembered, "one for winter and one for summer. They were rag carpets, made from old clothes and linens. My mother would wrap the bits and pieces into big balls, and my father would take them into town to have them made into carpets. We used the new one in summer, and the old one in winter, because of all the snow and muddy feet." Frances had a hand operated vacuum cleaner to keep them tidy.

Young musicians. The living room also boasted an organ and two violins, which Elmer's sisters played. "None of the boys were ever musically inclined."

Stephen and Frances' bedroom was downstairs, and they had a beautiful brass and iron bed with a store-bought mattress, quite unusual at the time. "Most people had straw or corn husk ticks," Elmer said.

Four bedrooms were upstairs—one for each boy and one shared by the two girls. "My sisters were very clever," Elmer recalled. "They made coathangers by cutting metal barrel rims in two, covering them, and adding hooks."

Mouth-watering preserves. Most of the family's food came from a large

From Farmer to Educator

In the tradition of most Midwesterners, Elmer Starch has an affinity with the land. An intelligent, good-humored, articulate man, his personal adventures in agriculture have been almost as transitional as farm life itself.

Elmer spent a happy childhood growing up on his father's farm in West Concord, Minn. When his father sold out in 1918, he and an older brother bought a nearby farm and went into business for themselves. They farmed together for 5 years, until "prices dropped so much after the War that we saw there just weren't enough profits for both of us." So he quit the farm to get an education at the University of Minnesota.

After graduation, Elmer ventured into farming once again, buying a Montana ranch in 1929, but his principal work in agriculture took other forms. He was eventually named head of the economics department at Montana State College, teaching agricultural economics and farm

management. It was here that he got involved in a novel experiment that would shape his future.

Fairway Farm, the college's experimental farm, conducted studies on the land under unique conditions—Montana's semiarid climate. New equipment, methods of farming, and tillage procedures were tried out, and Elmer was in on all of it—observing, studying, writing.

In 1933 he wrote one of the first treatises on the introduction of mechanization to agriculture. It appeared in the book *Farm Management and the Agricultural Revolution*.

The knowledge he gained at Montana State, especially in dry-land farming, eventually led him to other jobs—regional director of President Roosevelt's Resettlement Administration, foreign assignments with USDA and the Ford Foundation (including leading the Marshall Plan mission to Turkey in the early 1950's), lectures, and writing.

vegetable garden. For the winter months, Frances made preserves. Elmer remembered having over 200 quarts stored in their cellar, everything from raspberry sauce, to jellies, to elderberry syrup. Also 100 gallons of plum sauce from their own thicket—"The best I've ever tasted. To this day I can't eat a plain piece of bread without having something sweet on it." There were also vegetables, big wooden barrels of juicy pickles, and sauerkraut.

When the weather turned cold, Stephen would butcher a cow. The meat was packed in big ceramic jars between layers of snow. The jars were kept outside in the summer kitchen, an 18' x 30' building, the back of which was the woodshed and coal bin.

Multi-purpose building. "Along about May or June," Elmer said, "my

mother moved her cooking operation outside to the summer kitchen because she didn't want insects in the house. Also because of the heat. But in the winter, this was where the meat was stored."

There was also fried-down pork, which was kept in ceramic jars, layered in its own lard, and chicken. The only time the family had to buy meat was during threshing season, which began around the middle of September.

"The threshing crew wouldn't stand for pork," Elmer said, "so you'd have to buy additional beef. During this season, a local butcher would drive through the countryside selling beef from the back of a refrigerated buggy. It was a wooden contraption with a layer of ice in the bottom covered with sawdust."

One for all. Threshing in West

Concord was a community affair. One person owned a threshing machine, and on a rotation basis, crews made up of neighbors would visit each farm until the work was done. There was no pay, except for a huge noonday meal.

Transportation in those days really taxed the anatomy. Roads were unpaved and full of big potholes. It took the Starches an hour and a half to drive the 7 miles into town; with a loaded wagon it was longer. In 1914 Stephen bought a spiffy new Maxwell, the first farm-owned car in the community. Neither he nor Frances ever drove—the car was strictly for their boys.

The first excursion. “The car was delivered on a Thursday,” Elmer said, “and on Sunday we planned to make a family outing to my sister’s, 4 miles away. On Friday night there was a bad thunderstorm, and so on Saturday my brother and I decided we’d better examine the road and see if we’d be able to go. We started out, thoroughly studying every mudhole, and when we got through, we were a half mile from my sister’s house. We walked home, got the car and drove. When we reached my sister’s we found that it had taken us longer to drive than to walk.”

The town of West Concord had three doctors, and they all made house calls, although someone had to go into town to get them. Claremont, 12 miles away, had a better doctor, and it was common for a farmer to drive to West Concord and phone the doctor in Claremont. The farmers organized a telephone company in 1910, and the Starches were among the first families to get a phone. “There were 12 families on our party line,” Elmer said. “All that ringing used to drive us crazy.”

Farm fun. Entertainment was largely a family or church affair, with ice cream socials, picnics, and visits. In 1913, Elmer’s older brother, Edward, started the first Farmers’ Club in their township. This organization, similar to the Grange, would eventually spread throughout the State.

The Farmers’ Club filled a social

as well as political and educational function. In between monthly meetings, there were socials. Edward even coached a theatrical play each year, and had the younger children roaming about the countryside hawking it.

When rural mail delivery was started in West Concord, “in about 1904 or 1905,” the Starches put up their first mailbox. The carrier had a 25-mile route, and in winter it was pretty rough going. “There was a bounty on gophers,” Elmer recalled, “and you’d get 2 cents for every tail you turned in. You’d leave the tails in the mailbox, and the carrier would leave your bounty.”

Keeping abreast of the news. The farmers were able to get several newspapers through the mail. The *St. Paul Dispatch* came twice a week, the *Kenyon Leader*, once a week, and the *St. Paul Farmer*, every 2 weeks.

Politics, both local and national, were second nature to the farmers of West Concord. Although the Scandinavians and non-Scandinavians in the community got along all right together, there was great discrimination between the farmers and the townsfolk. Having different interests, they often sat on opposite sides of the political fence.

A sign of protest. “When the Farmer Labor Party was started (in 1920),” Elmer said, “more than half the farmers in the community belonged. There was great friction between them and the merchants in the town. One year the Farmer Labor group had a picnic, and they decided to walk home down the main street of town. All the merchants drew their curtains as a sign that they were against the party. There was a lot of unrest.”

According to Elmer, the biggest advance in farming during the years his father owned the farm was the discovery of a vaccine for hog cholera. “In those days, a farmer could lose his whole operation in one terrible blow,” he said. “In 1914, my brother Edward had returned from vocational school at the University of Minnesota, where he had touched

on veterinary medicine. He inoculated all our hogs and the hogs of all our neighbors—about 20 nearby farms. People would come early in the morning and fetch him, and Edward would ride over and do the inoculations. He was known as the ‘needles man’ among the people in the community.”

Better producers. Another thing Edward was responsible for was improving the line of cows on the family farm. “When Edward came back from school,” Elmer said, “he knew there was a difference in milk cows, that some were just naturally better producers than others. He instituted a system of weighing the milk, where you’d hang the pail on a spring scale. Every day you’d write down how much the milk weighed for each cow, and at the end of the month you’d tally the figures. Using this method, we were able to weed out the poor producers.

“We established two cows that were good producers, Josie and Molly. We kept all their female offspring. Josie became the ultimate parent of the entire herd. Within 10 years we had all good producers.”

Like father, like sons. When Elmer’s father sold the farm, the two brothers bought a farm 12 miles away. In the 5 years that they farmed together, they continued the progressive trend started by their father, at one point selling two horses to buy a steel-wheeled tractor. Edward still has the farm today.

Elmer’s early experiences with farming, first on his father’s farm and then with his brother, helped shape his opinions of farming today. A strong advocate of the family farm, he’s against cooperate farming and huge one-man operations.

The scientific and technical advances that have taken place since Stephen Starch owned his farm have been overwhelming. And as a result, “farm life was able to overcome its isolationism, its drudgery. There’s been a systematic advance out of peasantry.”

[Based on an interview with Mr. and Mrs. Elmer Starch, now living in Washington, D.C.]

Since our prehistoric ancestors first molded their hunting spears into tools to till the soil, man has become increasingly — and often painfully—aware of the weather.

Today is no exception. Despite the advance in farm equipment, seed varieties, pest and disease control, and management practices, weather is still the final arbiter between feast and famine. It's Mother Nature's show, and man is little closer to being the conductor than he was thousands of years ago.

This year, weather is even more crucial to worldwide crop production. World grain reserves have been shrinking rapidly since 1972 when bad weather slashed output in many areas. And after last year's disappointing U.S. harvest, many observers estimate that current grain stocks have dipped so low that another year of bad weather could pretty well eliminate them.

If we only knew . . . If we knew what weather had in store for us, maybe we wouldn't be in this predicament. With accurate long-range forecasts, food reserves could be kept at levels to accommodate yearly weather fluctuations.

But many meteorologists believe it may be 10 or 15 years before we have techniques good enough to do accurate year-to-year forecasts. Right now the National Weather Service makes regular 30-day forecasts of temperature and precipitation and seasonal forecasts for temperature.

However, the dearth of reliable long-range forecast data does not mean farmers have to wait until the end of the growing season to weigh the impact of weather on production. Throughout the crop period a good bit of agricultural evaluation can be done on the basis of past and present weather conditions. The key here is understanding weather's impact on production at critical stages in the life cycle of different crops.

Crucial factors. While there are a number of weather factors that play a leading role in total crop production, two of the most important are temperature and precipitation. For-

tunately, these factors are the easiest to get routine information about.

Above or below certain temperature limits, the additional heat or cold hinders plant growth and yields, and under extremes, kills the plant. Within the broad range permitting growth there is an optimum range for each crop.

But favorable temperatures alone aren't enough to insure a bumper

crop. Farmers through the centuries have found that no rain means no grain.

Precipitation is the primary source of water for growing crops—even in heavily irrigated areas it affects the farmer's source of water supply. Moisture from rain and snow is stored within the soil, providing a moisture reserve for growth.

Soil moisture critical. This is im-

portant because often the demand for moisture during the growing season exceeds the total precipitation in that period. A good reserve of winter and spring precipitation can carry a crop through a moderate dry spell.

The crucial role of soil moisture is heightened by the fact that nearly 99 percent of the water that a plant takes up from the soil is lost to

transpiration through the leaves. The remaining 1 percent is used to hydrate the plant, maintain turgor pressure, and make growth possible. Only one-tenth of one percent is actually chemically bound up in the plant.

While these factors are necessary in the everyday life of a crop, temperature and moisture levels assume even greater importance in determining total production during critical periods in the growing season. Here are a few stages to watch for as our major crop develop:

Winter wheat. A warm winter, such as we had this year, encourages premature growth. A killing spring frost, especially in the Great Plains where temperatures can dip into the teens, could literally wipe out the wheat crop.

Moisture reserves from fall and winter come into play as the growing season progresses. If reserves are low, good spring rains are needed for proper crop development. Spring started off dry this year in the Western Plains States, particu-

larly the Dakotas and eastern Montana, which went into winter with mild to moderate drought conditions. Timely rains have aided wheat in some States, but more may be required.

After the heading stage, virtually all of the increase in wheat's dry weight comes from grain filling, which begins in May in Texas and extends through June in the Da-

kotas. At this point, stress from insufficient water can reduce photosynthesis and lead to significant reductions in yields. This kind of stress also hastens maturity, shortening the filling time.

Because grain filling is a relatively rapid process, any entback in photosynthesis can affect grain production unless it comes early in the filling period. Prolonged moisture stress, even at moderate levels, almost invariably reduces grain weight.

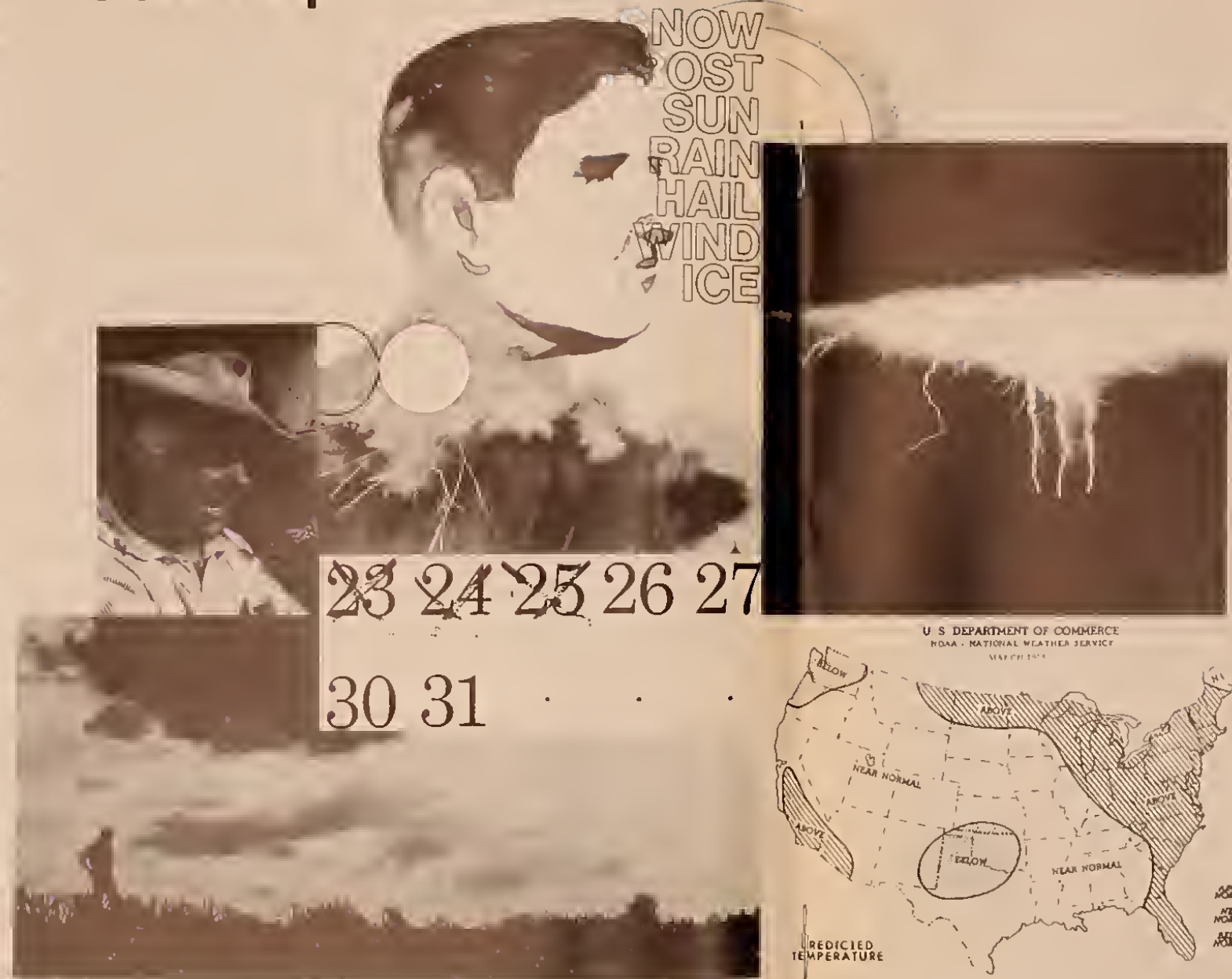
Once the winter wheat harvest begins, usually from late May in the Southern Plains through June and July farther north, a period of dry weather is ideal. Last year's dry summer parched corn and soybeans, but provided good harvest conditions for wheat.

Corn. Delays in corn planting can put a crimp on yields—as a general rule, by about 1 bushel a day for each day's delay after May 10 in planting. And cold, wet weather immediately after planting will slow seed germination and cause disease and weed problems.

Planting was late last year, and the wet spring got corn off to a poor start. This year, planting proceeded much faster. By June 1, more than 95 percent of the crop was in the ground—well ahead of last year's 83 percent and the average 89 percent.

Corn is fairly tolerant to moisture stress during its vegetative

The Fickle Farm Input



stage, and above-normal temperatures in May and June encourage good development and high yields.

However, weather conditions in July, during tasseling and silking, are extremely important in determining yields. Moisture stress at this time results in fewer grains per ear, or barrenness. Yields can drop by more than 50 percent from relatively brief periods of wilting. Last year, extreme heat and drought in late June and July caused severe and widespread barrenness.

Grain filling, which usually begins in late July and carries into September, is less sensitive to weather than silking or tasseling, but lack of moisture will hasten maturity and shorten the filling period. Above-normal rainfall and cooler than normal temperatures are beneficial.

As the September-November harvest season approaches, the rate of crop maturity is important, as delays in development increase the risk of frost damage. Last year's early frost was the final blow to an already shriveled corn crop.

Soybeans. Soybeans are normally planted from mid-May to mid-June, after corn planting is completed. Any delay in corn planting is usually passed onto beans, and late planting pushes the flowering period into late July and August when weather is hotter and drier.

With virtually all the corn planted in the Midwest and Southeast by June 1 this year, soybeans were making rapid gains. Nationally, about 67 percent of the crop was in the ground June 1—up from the 53 percent average and a dismal 42 percent last year. Progress was even more dramatic in Illinois, our leading soybean producer, where a whopping 87 percent of the crop was planted, compared with 16 percent in 1974. The average June 1 rate for Illinois was around 45 percent.

Less tolerant than corn, soybeans are even more susceptible to heat and lack of moisture after flowering, which normally begins in mid-

July. Weather stresses at this stage will cause greater reductions in yields—shaving both bean size and the number of beans per pod.

Hot, dry weather in August reduces both the rate and length of filling. Wet, windy weather causes the greatest problems during harvest in September and October.

Cotton. Because cotton is in the ground somewhere in the U.S. nearly all year round, this crop is particularly vulnerable to the whims of nature.

Soil temperature during planting in April and May is critical to seed germination. Normally, planting is started after the soil tempera-

ture has averaged 68 degrees for at least 5 days and the outlook for continued warm weather is favorable. Growers often delay planting for a few extra days, until soil temperature averages 70 degrees. Planting weather this year was especially important because harvesting delays last fall lowered the germination level of seed stock.

Wet weather delayed cotton planting in several States this year, and by June 1, 83 percent of the crop had been planted. This trials last year's 87 percent and the 88-percent average.

Good rainfall just prior to blooming in late July generally gives yields a healthy boost. However, prolonged cloudiness throughout blooming results in excessive shedding of blooms and small bolls. Blooms will also drop too quickly if the weather shifts suddenly from cool to hot.

Wet weather during the October-November harvest provides a breeding ground for disease and reduces boll quality—a major problem last year. In the Deep South, normal planting results in boll opening and harvest in early to mid-October when there's minimal chance of rain.

Weathering disease and insects. Weather factors can also influence crop growth in less direct ways. Unfortunately for plants, weather plays a key role in the development and spread of diseases and insects. Two examples—the northward spread of southern corn leaf blight a few years ago, and the reappearance of screwworm flies in the Southwest.

In the case of corn blight, agricultural meteorologists determined that it couldn't have developed and thrived without the presence of water on corn leaves for a period of 4 to 16 hours during spore germination.

The saga of the screwworm fly involves temperature as well as moisture conditions. This pest had been virtually eradicated from the Southwest in the late 1960's, and until the early 1970's, the usually hot, dry

Worldwide Weather

As if it weren't enough having to worry about our own weather conditions, the depletion of grain stocks means that production around the world now has a significant impact on the food supply and price situation in the United States.

And it points up the link between the effects of weather in one place and those in another.

An ERS analysis of yield trends and variations in the world's major grain producing areas indicates that when bad weather cuts grain yields in one area, the chances are better than 50-50 that yields will be lower in other parts of the world as well.

The correlation is not great, but it's apparent that poor years hit many of the world's grain regions at the same time. Last year is a good example, with North America, the U.S.S.R., the Indian subcontinent, and other Asian countries producing sub-par harvests.

Fortunately, good weather—as evidenced by grain yields—tends to occur at the same time, too. And 1973 was a record-setting year for world output.

However, the study suggests that from year to year the effects of weather are random. While some regions show patterns of persistently good or bad weather, others tend to oscillate. On the average for the world, the chances for consecutively good or bad years are about even.

summers along the Rio Grande discouraged any large-scale invasion of the insects from Mexico.

However, in 1972 the flies got off to an early start at a point farther north than in previous seasons. Coupled with a wet, cool summer in Texas, this enabled the flies to invade and reproduce to where they seriously threatened Southwestern livestock. A joint U.S.-Mexico control program is still working on the screwworm fly problem.

Effects on chemicals. Besides insects and plant diseases, many agricultural chemicals are also sensitive to weather conditions. Some readily break down in sunlight, and most get washed away if rain falls shortly after application.

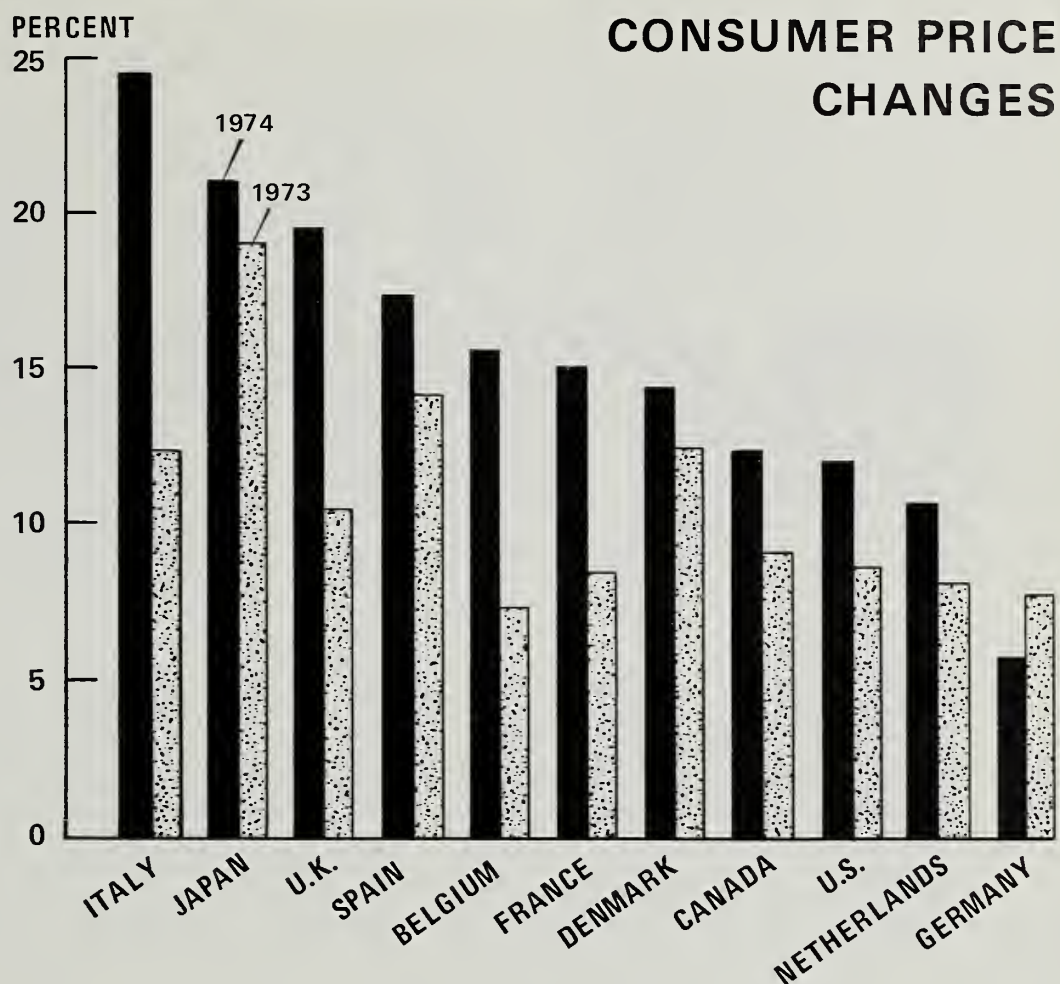
In the case of fertilizer, the amount to be applied varies with soil moisture, probable rainfall for the rest of the season, and soil temperature, which affects the conversion of chemicals into mobile forms.

For example, nitrogen fertilizers in their water-soluble nitrate form move easily down through the soil. If the soil is too wet to absorb the nitrates, they will pass into the groundwater or into adjoining streams and reservoirs.

Applying chemicals at the wrong time not only increases their pollution potential, but also costs the farmer money and extra work.

Discussion of weather's full impact on agriculture could go on to fill volumes. To be sure, great strides have been made in understanding the weather, but much is still unknown or imperfectly understood. Will we ever know? One meteorologist has his doubts. "I believe that when my forecast is wrong," he says, "someone on high has slapped me on the knuckles and said, 'Let's slow down. I'll teach you a certain amount about this show I'm running, but you're not going to know everything.'"

[Based on the article "Weather: A Key to 1975 Production" by Richard E. Felch in the *Weekly Weather & Crop Bulletin*, Mar. 4, 1975, and on *The World Food Situation and Prospects to 1985*, Economic Research Service.]



THINK INFLATION HIT YOU HARD IN 1974? Well, be glad you weren't living in Italy or Japan, where inflation zoomed by more than 20 percent. As this chart shows, the U.S. rate—a little over 12 percent—ranked below eight other industrial countries. Only the Netherlands and Germany reported slower growth rates.

While the U.S. rate of inflation in 1974 went up about 40 percent over 1973, it nearly doubled in four countries—Italy, the United Kingdom, Belgium, and France. Only Germany had a lower rate of inflation in 1974 than in 1973.

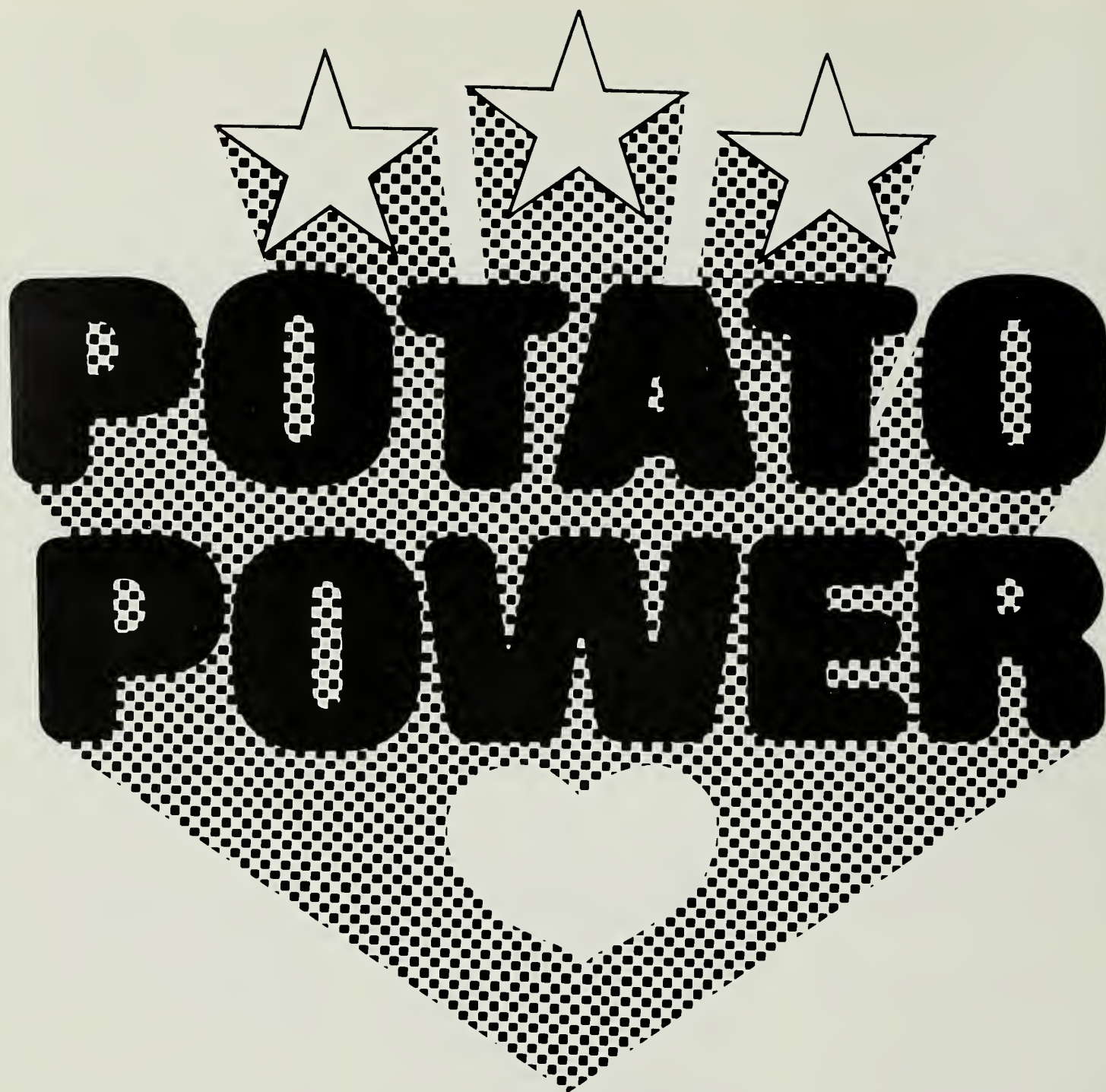
Higher food and oil prices were the major culprits. Food prices played a smaller role in 1974 than in 1973, however. They accounted for about 45 percent of the 1973 inflation in the 11 countries shown in the chart, whereas in 1974, they accounted for a little under 30 percent. Here at home, food prices

were responsible for a little over half of the price rise for all items in 1973, compared with about one-fourth in 1974, when food prices rose at about the same rate as all other items.

Oil prices, on the other hand, had their greatest impact in 1974, though it's difficult to tell just how much they added to the inflationary spiral.

Climbing prices of many raw materials and wage increases also fueled inflation. Prices of such commodities as lead, zinc, copper, tin, rubber, and cotton were at 10-year highs throughout 1973-74. Most of these prices have been declining in recent months, however, so their impact on inflation should ease off. Wage demands, on the other hand, will probably remain a major force in the 1975 picture.

[Based on special material from Hal Goolsby, Foreign Demand and Competition Division.]



Although plagued somewhat by supply problems, the popular potato is enjoying a strong present and looks to a brighter future.

The common potato has been attracting a lot of attention since ancient times.

As long ago as 200 A.D. South Americans were sculpturing likenesses of mainstay vegetable on their pottery. By the 1600's, Europeans were quarreling over it: they couldn't decide whether to cultivate the plant's flowers, eat the potatoes, use them as medicine or a love po-

tion, or ban the potato for health or religious reasons.

The Irish potato famines of the mid-1800's left their mark on history, too. Not only did 2½ million people die from starvation and related diseases, but immigration to the United States swelled as a result of the famines.

Although today the potato doesn't have the aura of mystery it once did or hold an awesome dietary monopoly, it still packs power as evidenced by the multi-billion dollar industry in the United States.

Record production. Growers produced a record potato crop last

year—340 million hundredweight. Consumers will ultimately eat about three-fourths, while the rest will be used for seed, livestock feed, or inedible potato starch, or lost during transit or storage.

Of the potatoes we eat, about 55 percent are processed, compared with only 12 percent in 1956. Frozen french fries, dehydrated potatoes, and potato chips and shoestrings accounted for the bulk of the processing (94 percent). Other frozen items, canned potatoes and products, and potato flour made up the rest.

A USDA consumer survey last

year rated the potato as one of the seven most favorite vegetables. More than 3 out of 4 of those surveyed said they served potatoes at least 2 or 3 times a week.

Erratic supply. A vegetable with the market and acceptance of the potato would seem to have it made. However, the potato still has one big threat—itsself. Its erratic supplies have caused ups and downs in the industry, which have been reflected in seesawing prices.

As consumers well remember, potato prices reached record highs in May 1974 of 24 cents a pound, on the heels of tight supply. However, up to May 1 this year, prices have been at “bargain” levels, as producers and wholesalers try to move large stocks. But with a smaller spring crop this year, and substantial depletion of remaining storage stocks, prices have advanced in recent weeks.

So why does the potato industry seem so plagued by erratic supply and prices? After all, most other vegetables are more stable.

A ready blame is often crop failure due to weather or disease. Although the potato has its hosts of diseases and needs some cooperation from the weather, crop failure is not the reason.

Price swings. The answer rather, is inelastic demand. This simply means that small changes in production result in wide swings in prices. When prices soar, consumers buy fewer potatoes and eat starchy substitutes such as rice or noodles. On the other hand, low prices do not induce consumers to eat more potatoes.

Unpredictable supplies also cause problems in ways less obvious to the public. One is the boom or bust effect on growers’ incomes, and the other is uncertainty of supply at the processing plants.

For example, when potatoes fetch good prices, growers tend to expand acreage to up earnings. However, too great an increase in production has a boomerang effect—prices are brought down. Based on past ex-

perience, for each 1-percent increase in supply, grower revenues fall by 2 to 3 percent.

Processing contracts. With more and more potatoes being processed, a dependable supply of potatoes becomes even more crucial to the industry. Processors attempt to sew up their supplies through contracts. But as a USDA task force discovered last year, the contracting system has its problems, too.

One is that the contracts are short term and have little or no effect on stabilizing prices or volume. Another is that grower organizations have no real clout to control potato acreages or production to assure favorable contract terms at the bargaining table.

A third problem the task force pointed out is the lack of U.S. standards for chipping potatoes. This leads to contracts where the processor is the sole judge as to whether the potatoes a grower delivers meet his own requirements. The grower stands to lose heavily even though he has a “contract” with the processor.

Recession’s blow. The recent recession also dealt a blow to the industry at a time when potatoes were already overstocked. To pinch pennies, consumers cut back on snack foods (potato chips, etc.) and away-from-home eating (a big market for frozen french fries). And the recession-induced demand for fresh potatoes did not keep the total demand for the vegetable from dropping some.

Meanwhile, stocks of processed potatoes have piled up. As of April 1, processors had 76 million more pounds of frozen french fries on hand than a year earlier. Supplies of other frozen products also grew.

Brighter prospects. Despite the problems, the potato seems to be firmly rooted in the American scheme of things. And several things have been happening to make the potato’s future even brighter:

- Growers’ organizations are strengthening. With greater grower cooperation, wide swings in produc-

tion could be lessened to a considerable degree.

- Two USDA agencies—Agricultural Marketing Service and Agricultural Research Service—are working on grade standards for potatoes going into potato chips. Through standards and testing procedures acceptable to both growers and processors, they hope to iron out problems in contracts for chipping potatoes.

- Storing technology has been improving so that “old crop” potatoes can be sold for longer periods. This helps to ease out overproduction or carry the supply through lean stretches.

- Increasing popularity of dehydrated potatoes has cut transportation costs and problems for the industry. Shipping dehydrated potatoes cuts down a lot on tonnage since fresh potatoes, on the average, are about 75 percent water.

- The popular “stackable” potato chip has added a new dimension to the snack food market. This new chip, unlike the traditional chip made from potato slices, is made by reconstituting dehydrated potato flakes or granules.

Interest is increasing in the relatively untapped foreign market. Currently, we export very few potatoes—only 567 million pounds last year. And most of these are part of a two-way trade across the Canadian border. However, processors in the Northwest are eyeing prospects for shipping processed potatoes to the countries on the rim of the Asian continent. Japan presents a problem, though, because it bans a preservative currently used in U.S. dehydrated potatoes.

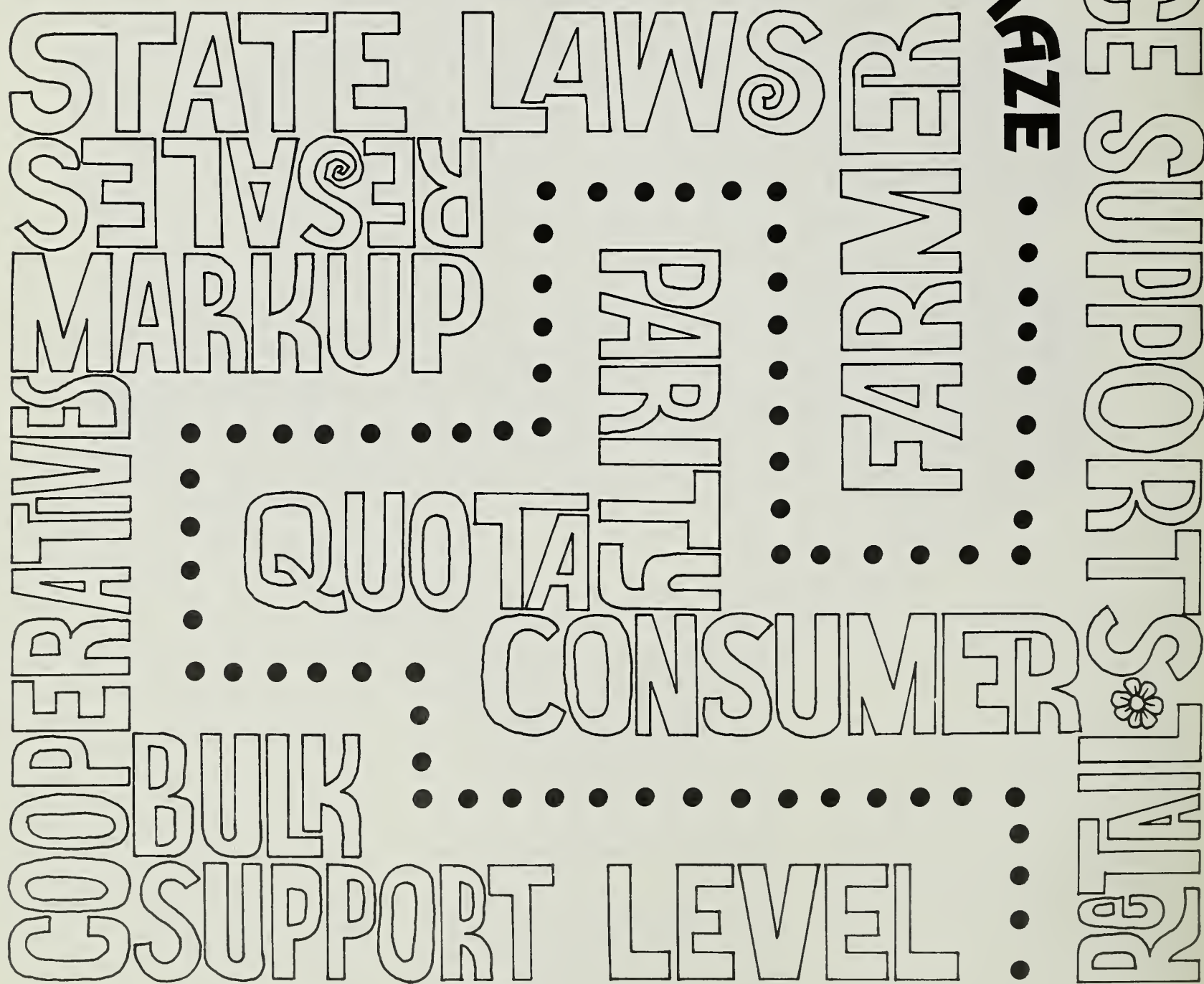
- The possibility of including potato granules in foreign aid shipments is being looked into. Growers and processors have asked the Government to consider using the granules in powdered milk going to feed babies or hospital patients. The potatoes would boost nutritional value, they say.

[Based on special material from Charles W. Porter, Commodity Economics Div.]



MILK PRICES

THE MILK PRICING



From the farmer's dairy barn to the consumer's table, milk prices are paced by a host of Federal, and frequently, State regulations.

Milk prices are no fluid thing. They seem to be more stable than many other food prices. Even with the recent bursts of inflation they've

gone up less than many other foods.

It's no accident that milk prices are the way they are. Rather, it has to do with Government price supports, milk marketing orders, State laws, dairy import quotas, co-operatives, and trade regulations.

Sounds complicated, and it is. However, the whole system is set up to insure the consumer can get

all the milk he wants, as well as help the diaryman get a reasonable return on his investment.

History. Why things got so complicated dates back to the period between the Civil War and World War I, when people began to notice that seasonal fluctuations in milk supply lead to unstable prices. The price instability, in turn, would

drive many milk producers out of business and lead to wild swings in production and prices.

Not surprisingly, many people began to look for ways to stabilize milk marketing. Several systems were touted or tried—such as flat pricing for all milk, classified pricing systems, and marketing agreements. Some were written off as unworkable, while others laid the groundwork for today's system.

Price support. The mainstay of today's milk pricing system is the Government price support. Since the Agricultural Act of 1949, it has been set between 75 to 90 percent of parity. (Parity is the ratio between what farmers get for their milk and their investment costs, based on a historical period.) Each year the Secretary of Agriculture determines the support level. In 1973 and 1974 the minimum was set at 80 percent.

The support price is the price a processor pays for milk for manufactured products—cheese, butter, ice cream, etc. USDA's Commodity Credit Corporation backs up the support price through an offer to buy butter, nonfat dry milk, and American cheese at prices which are designed to return the support price to the farmer.

Federal marketing orders. Federal milk marketing orders cover most of the milk classified as fluid grade—milk meeting the standards to be sold to the consumer as fresh milk. The orders do not limit quantities of milk produced, but rather set minimum prices which the processors must pay for the raw milk.

The prices are determined on a geographical basis, and the process works like this: The cost of transporting milk from the Minnesota-Wisconsin region to any one of 61 designated marketing areas is added to the cost of fluid milk in Minnesota-Wisconsin. This figure then becomes the minimum price that processors must pay in a particular marketing area.

Why the Upper Midwest base? Because this area produces the largest supply of milk over and above local consumption needs.

Farmers' prices. The minimum prices set under the marketing orders are those paid by processors—not the prices farmers get. Farmers are paid a "blend price" which is an average based on the proportions of milk used for fluid and manufacturing purposes.

The blend price can vary with the supply of milk—larger supplies of fluid-grade milk would lead to a lower blend price because the excess fluid-grade milk would go into the manufacturing-milk class.

State laws. In addition to Federal orders, fluid-grade milk is also subject to regulation in 18 States. Federal orders regulate producer prices for over three-fourths of the fluid-grade milk sold to plants and dealers, while the 18 States regulate another 18 percent. Only about 4 percent of the fluid-grade milk sold in the United States is not under either Federal or State regulation.

Farmer cooperatives are beginning to figure more in milk marketing these days. In many cases, co-ops have taken charge of gathering and managing the milk, routing it to distributors as needed, and managing the surplus. This way supply is more nearly balanced with demand, and costs to the handlers are kept down.

Import quotas. Our system of dairy import quotas also serves to stabilize milk supply and prices. As a recent ERS study pointed out, if unlimited imports of dairy products were allowed into the United States, we would have lower prices for awhile. However, in the long run, prices would probably be even higher and more unstable than with the quotas. Also, the supply of dairy products would be much more uncertain, and many of our dairymen would be forced to throw in the towel.

In addition to all the above regulations on bulk milk and imports, some States regulate wholesale or retail prices (or both) of fluid milk. The Federal Government, however, does not set prices for milk at the wholesale or retail levels.

Wholesale and retail prices. Currently, 10 States regulate both wholesale and retail prices of fluid

milk: Alabama, California, Maine, Montana, Nevada, New Jersey, North Dakota, Pennsylvania, South Dakota, and Vermont. South Carolina, Wyoming, Louisiana, and Virginia regulate wholesale prices only.

In addition, Massachusetts and North Carolina have authority to regulate wholesale and retail prices in an emergency, but have not done so in recent years. North Carolina also requires that resale prices be filed with the Milk Commission—which has a strong stabilizing effect on prices.

While States differ in their regulation of retail prices—some set minimum prices, some maximum, and some both minimum and maximum—the end result is to fix prices. Only New Jersey and Vermont are exceptions. They set minimum prices at a stop-loss level, with market prices generally being higher.

Trade practices. Most States with resale price-fixing authority—as well as a number of other States—regulate trade practices. The State trade practice laws usually prohibit all or most of the following: free merchandise, unreasonable extension of credit, secret rebates and discounts, free signs, unearned advertising allowances, loans of money, free equipment, free repairs and services, sales below cost at the wholesale or retail level, area price discrimination, and purchaser price discrimination.

As a further watch on prices, several States require a minimum markup, particularly by retailers. Others demand that retail milk prices be filed with a State agency.

How the trade practice regulations actually affect the price the consumer pays is hazy. On the one hand, prices are likely to be somewhat higher than they would be without the regulations. On the other, since processors are denied many forms of nonprice competition, they may tend to focus on price competition to get more business.

[Based on the manuscript *Milk Prices, Marketing Orders, and Price Supports*, by Alden C. Manchester, National Economic Analysis Division.]

U.S. Farm Auctions Rate Low Bid

Trying to outbid your neighbor at an exciting auction is probably the most fun way of shopping. And one of the oldest. Our Pilgrim Fathers auctioned off land, livestock, fruits, and vegetables over 300 years ago.

Today, auctions selling general merchandise are still going strong. Every town worth its salt has a professional auctioneer, and Saturday afternoons at the auction barn have become a weekly ritual for many families.

The farm auction is something else. Though most feeder livestock and tobacco continue to be marketed this way, agricultural auctions on the whole seem to be selling on thin ice.

One ERS economist judges farm auctions have been on the decline for the past 25 years. He says it's because of their inefficiency, particularly in how they're set up and in their mode of operation.

There are, for example, about 1,700 livestock markets in the U.S., most of which operate only 1 day a week. Even if the number of markets were reduced to the point that those still in business operated at 100-percent capacity, there would still be 4 to 5 times the number of markets

needed to sell what's now being offered at auction.

The excess of livestock markets means that only a small number of buyers can attend a particular auction. With something like 300 to 400 livestock auction sales going on every day of the week except Sunday, obviously only a small percentage of buyers can attend any one sale.

In a truly competitive market situation, buyers and sellers have up to the minute information on the exchange price. Because our auction markets are generally far apart, they don't have the advantage of communication with each other. Participants at one market are pretty much in the dark as to the exchange price at another market.

Livestock sold at auction are priced on appearance alone. There are no qualifications as to standards or grades, and buyers are at a disadvantage in trying to determine an animal's real worth.

The costs created by these inefficiencies are substantial, not to mention the costs of moving products to and from the auction site.

The auction's shortcomings can spell higher prices at the super-

market. A 1972 study of livestock marketing methods found that the total cost of selling fed cattle by auction was over 4 times greater than it could have been under a well run system.

While the auction method of selling agricultural goods in this country has always been inefficient, the ERS economist believes that the problems can be corrected. He cites the 10-year-old Canadian teletype method of pricing butcher hogs as an example of an efficient auction market system—one that doesn't involve hidden costs to consumers. It lacks most of the problems of our auction markets, and its only major flaw is that it's organized on a Provincial (State) rather than a Dominion (National) level.

The economist feels that until we overhaul our auction market system, and adopt a method similar to the Canadian one, we will never have an efficient method of selling farm goods by auction.

[Based on a paper by Ralph D. Johnson, Commodity Economics Division, to be published in the manuscript Bidding and Auctioning for Procurement and Allocation, New York University Press, 1975.]



Although not as popular as they used to be, farm auctions still sell large amounts of produce.



With some 1,700 livestock markets, auctions are the major way of selling farm animals in this country.

Small Town America's Character Is Changing

Take heart, small town America is not dying. It's only changing, and in fact is doing quite well, thank you.

No longer is it the provincial and isolated place stereotyped in Sinclair Lewis' *Main Street* or Sherwood Anderson's *Winesburg, Ohio*. Rather, it is becoming more a place to have a home, and less a place to depend on for major goods and services.

In 1970, many rural nonfarm residents commuted to another community for work. Some found employment in nearby larger towns, and 1 out of 4 commuted to another county.

One reason is that small towns—places with less than 2,500 people—have been losing some of their consumer-oriented businesses. Nearly a third closed shop during 1950-70, even though populations in the small towns swelled by almost a tenth.

If you're not a commuter at heart but want to live in a small town, you may still find a job there. Small towns offer a broad variety of employment opportunities in manufacturing and other industries, such as: communications and utilities, general retailing (other than food and automotive), repair services, personal services, health services, and religious or nonprofit activities.

Also, small towns still provide employment in agriculture, mining, wood products manufacturing, textile industries, and motor vehicle and gas station retail trade.

The construction business and services relating to housing are also growing in many out-of-the-way places. The nationwide trend toward smaller households—fewer people under one roof—has been a major factor in increasing the number of housing units.

Even areas with declining population are demanding more houses. For example, half of the counties (mostly rural or small town in character) that lost population dur-

ing the 1960's actually had more occupied housing units than in the decade before.

But if none of the above occupations suits you, your chances of becoming a noncommuting, small town resident (other than a retired one) may be slim.

Businesses you can pretty much cross off the list of opportunities include: machinery manufacturing, printing and publishing, transportation, other than trucking and railroads, wholesale trade, financial and real estate firms, business services, entertainment, and professional services—legal, engineering, etc.

[Based on the manuscript *Small Towns: Their Status and Recent Trends*, by Calvin L. Beale, Economic Development Division.]

Tax-Saving Tip

With April 15 crossed off your calendar, Federal income taxes may be the last thing on your mind. However, you might save money on next year's tax bill by thinking now about itemizing your deductions if you didn't the last time around.

But you say you already take advantage of the special farm tax schedule? Well, you may benefit even more by itemizing. Therefore, you should always keep a record of deductible personal expenses because you can never be sure until the end of the year whether it is better to itemize or take the "standard deduction."

In 1970 (year of latest published figures), over three-fourths of those filing a farm tax schedule itemized their deductions, and they claimed over \$4 billion. Had they not itemized, they would have paid about \$242 million more in taxes, which figures out to a little more than \$100 a return. Itemizing could result in even greater savings with larger incomes.

[Based on *Income Tax Rules and Agriculture* (Seminar Proceedings), Special Report No. 172, University of Missouri, by W. Fred Woods, National Economic Analysis Division, and Thomas A. Carlin, Economic Development Division.]

Wealthy OPEC Nations Swap Oil for Food

The rise to power of the oil-exporting nations is a two-edged sword.

On the one hand, increased oil prices have created problems ranging from consumer ire to serious trade imbalances in some countries. On the other, the increased wealth of the Organization of Petroleum Exporting Countries (OPEC) has opened up a vast new market for agricultural goods.

High oil prices have led to balance of payments deficits particularly in Japan, the United Kingdom, France, Italy, and many developing countries. Sluggish economic activity around the world has complicated the problem.

Overall, the oil-importing world chalked up a \$60-billion trade deficit with OPEC in 1974. However, neither U.S. farm exports nor world trade in general was impeded.

In fact, our farm exports were at a record-breaking \$22 billion last year, up 25 percent in value from 1973. (The volume of exports, however, was down 6 percent.)

Nearly 17 percent of the increased value of our exports came from shipments to OPEC. These shipments jumped to \$1.6 billion last year—more than doubled the 1973 level.

Iran was our biggest OPEC customer, taking over a half billion dollars of U.S. farm goods. Venezuela ranked second, with \$300 million.

Indonesia was the only OPEC member to import less U.S. food in 1974 than in 1973. Increased competition from Asian suppliers—particularly Pakistan, The People's Republic of China, and Thailand—was responsible for the decline.

This year our exports to OPEC are expected to jump by \$500-675 million. Most of the increase will go to Iran, Iraq, the Arabian Peninsula, and Algeria.

[Based on "U.S. Agricultural Exports and the World Monetary Situation," a paper presented by Hal Goolsby, Foreign Demand and Competition Division, at the Agribusiness Conference, April 21-22, Washington, D.C.]

Recent Publications

Canada's Export Market Development for Agricultural Products. Omero Sabatini, Foreign Demand and Competition Division. FAER-107.

Since the late 1960's when Canada's wheat exports declined, our northern neighbor has been actively promoting its agricultural exports. This report focuses on how these promotional activities have led to expanded farm exports to established markets as well as to new market outlets—including some traditionally dominated by the United States. Also highlighted is the possible competition U.S. exporters are likely to face as a result of the stepped-up Canadian export program.

State and Federal Legal Regulation of Alien and Corporate Land Ownership and Farm Operation. Fred L. Morrison, University of Minnesota, and Kenneth R. Krause, National Economic Analysis Division. AER-284.

In light of the increasing interest in alien and corporate investment in U.S. farmland and involvement in agricultural production, this report reviews existing regulations pertaining to such investments. Both State and Federal rules are examined.

Handbook of Agricultural Charts: 1975 Spring Supplement. Economic Research Service. Supp. to AH-477.

Through 66 charts, this supplement gives the reader an up-to-date view of the agricultural scene. Such in-the-news topics as food prices, farm income and expenses, grain supplies in the U.S. and worldwide, and the U.S. export situation are depicted.

Social and Economic Characteristics of the Population in Metro and Non-metro Counties, 1970. Fred K. Hines, David L. Brown, and John M. Zimmer, Economic Development Division. AER-272.

Educational attainment, income, and employment status are, on the average, lower for people in totally rural nonmetropolitan counties of the U.S. than for people in other

Single copies of the publications listed here are available free from Search Service, Rm. 1664-So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by () may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.*

areas, this study concludes. However, urbanized nonmetropolitan counties compare quite favorably with the metropolitan sector in terms of their populations' composition and socioeconomic status. Across all residence categories, however, there are substantial differences between the total population and the minority population. The study is based on trends during 1960-70.

Marketing Practices and Price Spreads for Sugar, 1960-72. L. C. Larkin, Commodity Economics Division. AER-289.

Farm-to-retail marketing spreads for refined sugar during 1960-72 are the focus of this study. It points out that the retail price of refined sugar increased 22 percent during the period, while the farmer's share of the consumer's dollar increased from 36 to 42 percent. Returns to sugarbeet and sugarcane growers in all domestic production areas also increased.

Cotton Gin Operating Costs in West Texas, the Lower Rio Grande Valley, and the Blacklands of Texas, 1971 and 1972 Seasons. Dale L. Shaw, Charles A. Wilmot, and Betty K. Heron, Commodity Economics Division. AER-286.

Capacity utilization and operating costs were analyzed for 90 gins, representing about 19 percent of both ginning capacity and volume of cotton ginned in the study area. Compared with 1971, the 1972 average costs per bale were down.

Competition Between Soybeans and Other Crops in Major U.S. Regions. W. A. Boutwell, Commodity Economics Division, and H. M. Harris and D. Kenyon, Virginia Polytechnic Institute and State University.

This report evaluates the soybean/corn and soybean/cotton cost-price ratios. These ratios, calculated for the 1974 planting season, favored corn and cotton over soybeans. An analysis of price variations for corn and soybeans showed the maximum cost-price ratio to be lower in the South Atlantic than in the Corn Belt.

Cotton Gin Operating Costs in the San Joaquin Valley of California 1971/72 and 1972/73. Charles A. Wilmot, Dale L. Shaw, and Betty K. Heron, Commodity Economics Division. AER-285.

A comparative study of 41 sample gins in the San Joaquin Valley of California in 1972/73 with the previous season revealed higher overall averages in rated ginning capacities, annual volumes ginned, and in plant capacity utilization. Ginning revenues from all sources combined were almost identical.

The Agricultural Situation in Africa and West Asia, Review of 1974 and Outlook for 1975. Foreign Demand and Competition Division. FAER-108.

This report reviews the 1974 agricultural year in selected countries of Africa and West Asia, gives the early season outlook for 1975 production and trade of several commodities, and cites 1974 U.S. agricultural trade with the countries.

Florida Cucumbers and Green Peppers: Production, Marketing Patterns, Prices, and Margins. Alfred J. Burns and Joseph C. Podany, Commodity Economics Division. ERS-603.

This report traces recent trends in production, marketing, prices, margins, and grower returns for fresh Florida cucumbers and green peppers. It also discusses the increased competition Florida growers are facing from Mexican vegetables.

Economic Trends

Item	Unit or Base Period	1967	1974		1975		
			Year	Mar.	Jan.	Feb.	Mar.
Prices:							
Prices received by farmers	1967=100	—	184	193	172	168	165
Crops	1967=100	—	213	215	201	192	185
Livestock and products	1967=100	—	163	179	153	151	152
Prices paid, interest, taxes and wage rates	1967=100	—	169	162	180	180	179
Family living items	1967=100	—	161	156	173	175	173
Production items	1967=100	—	172	162	182	180	179
Ratio ¹	1967=100	—	109	119	96	93	92
Wholesale prices, all commodities	1967=100	—	160.1	151.4	171.8	171.3	170.4
Industrial commodities	1967=100	—	153.8	142.4	167.5	168.4	168.9
Farm products	1967=100	—	187.7	197.0	179.7	174.6	171.1
Processed foods and feeds	1967=100	—	170.9	163.0	186.4	182.6	177.3
Consumer price index, all items	1967=100	—	147.7	143.1	156.1	157.2	157.8
Food	1967=100	—	161.7	159.1	170.9	171.6	171.3
Farm Food Market Basket: ²							
Retail cost	1967=100	—	161.9	161.7	168.7	169.3	168.5
Farm value	1967=100	—	177.6	183.7	172.8	172.8	171.0
Farm-retail spread	1967=100	—	152.0	147.8	166.0	167.1	166.9
Farmers' share of retail cost	Percent	—	43	44	40	40	39
Farm Income: ³							
Volume of farm marketings	1967=100	—	115	93	127	92	91
Cash receipts from farm marketings	Million dollars	42,817	95,004	6,637	8,293	5,484	5,500
Crops	Million dollars	18,434	52,677	2,843	4,824	2,395	2,300
Livestock and products	Million dollars	24,383	42,327	3,794	3,469	3,089	3,200
Realized gross income ⁴	Billion dollars	49.9	102.0	—	—	—	98.0
Farm production expenses ⁴	Billion dollars	38.3	74.8	—	—	—	76.5
Realized net income ⁴	Billion dollars	11.6	27.2	—	—	—	21.5
Agricultural Trade:							
Agricultural exports	Million dollars	—	17,680	2,093	2,459	1,920	1,911
Agricultural imports	Million dollars	—	21,944	984	811	694	749
Land Values:							
Average value per acre	Dollars	^a 168	^a 339	—	—	—	^a 354
Total value of farm real estate	Billion dollars	^a 181.9	^a 355	—	—	—	^a 370
Gross National Product: ⁴							
Consumption	Billion dollars	793.9	1,397.4	1,358.8	—	—	1,417.1
Investment	Billion dollars	492.1	876.7	840.6	—	—	913.2
Government expenditures	Billion dollars	116.6	209.4	210.5	—	—	163.1
Net exports	Billion dollars	180.1	309.2	296.3	—	—	331.6
		5.2	2.1	11.3	—	—	9.3
Income and Spending: ⁵							
Personal income, annual rate	Billion dollars	629.3	1,150.5	1,117.1	1,191.1	1,193.4	1,195.7
Total retail sales, monthly rate	Million dollars	26,151	44,815	43,872	45,955	46,819	45,926
Retail sales of food group, monthly rate	Million dollars	5,759	9,980	9,594	10,672	10,643	10,805
Employment and Wages: ⁵							
Total civilian employment	Millions	74.4	^a 85.9	^a 85.8	^a 84.6	^a 84.0	^a 83.8
Agricultural	Millions	3.8	^a 3.5	^a 3.7	^a 3.4	^a 3.3	^a 3.3
Rate of unemployment	Percent	3.8	5.6	5.1	8.2	8.2	8.7
Workweek in manufacturing	Hours	40.6	40.0	40.3	39.2	38.8	38.8
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	4.40	4.24	4.65	4.67	4.71
Industrial Production: ⁵	1967=100	—	125	125	114	111	110
Manufacturers' Shipments and Inventories: ⁵							
Total shipments, monthly rate	Million dollars	46,449	81,723	78,197	79,124	78,875	77,028
Total inventories, book value end of month	Million dollars	84,655	150,404	126,500	151,624	151,993	151,194
Total new orders, monthly rate	Million dollars	46,763	83,297	79,547	74,958	76,139	73,882

¹ Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. ² Average annual quantities of farm food products purchased by urban wage earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. ³ Annual and quarterly data are on 50-State basis. ⁴ Annual rates seasonally adjusted 1st quarter. ⁵ Seasonally adjusted. ⁶ As of March 1, 1967. ⁷ As of Nov. 1, 1974. ⁸ As of March 1, 1975. Beginning January 1972 data not strictly

comparable with prior data because of adjustment to 1970 Census.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale and Consumer Price Index).

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